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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Barry McQuain

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EXAMINER

CHANDLER, SARA M

ART UNIT

PAPER NUMBER

3693

DATE MAILED: 10/12/2006.

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/961,026	<b>Applicant(s)</b> MCQUAIN, BARRY	
	<b>Examiner</b> Sara Chandler	<b>Art Unit</b> 3693	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-18 and 20-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-18 and 20-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Amendment*

This Office Action is responsive to Applicant's arguments and request for reconsideration of application 09/961,026 (09/20/01) filed on 08/18/06.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 1,3,4,18,20, 21,35,36,37,38,39 and 40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admission of Prior Art in view of Greenwald, US Pub. No. 2002/0161693 and Madhavan, "Trading Mechanisms in Securities Markets," The Journal of Finance, Vol. 47, No. 2 (Jun., 1992), pp. 607-641 (hereinafter, Madhavan).

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**Re Claim 1:** Applicant admits the prior art discloses an automated trading system comprising:

a pricing engine for providing to a client a price quote for said security (Applicant Disclosure, pg.1, lines 14+ -pg. 2, lines 1-2, Fig. 1);

a past trades database for storing information regarding at least one past trade executed by the client (Applicant Disclosure, pg. 2, lines 8-11, applicant admits the system may provide more favorable pricing to clients based on past trade business (e.g., the volume of past trades));

a module with price quotes from one of a discrete number of pricing levels in communications with said pricing engine for adjusting the price provided to said client based on the at least one past trade (Applicant Disclosure, pg. 2, lines 3-13 the pricing level given to a particular client is based on prior trading business).

Applicant fails to admit the prior art discloses a system for adjusting a price for a security, said price having a spread and wherein the system comprises:

a price quote log for storing information regarding at least one past price quote received by the client; and

a price adjustment module in communications with said pricing engine for adjusting said spread provided to said client based on the at least one past trade.

Greenwald discloses a system wherein the system comprises:

a price quote log for storing information regarding at least one past price quote received by the client (Greenwald, abstract, Figs. 1-3, [0002] [0003] [0004] [0005] [0008] [0010] [0012] [0014] [0015] [0018] [0033] [0040] [0041] [0042] [0043]); and

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a price adjustment module in communications with said pricing engine for adjusting said spread provided to said client based on the at least the at least one past price quote (Greenwald, abstract, Figs. 1-3, [0002] [0003] [0004] [0005] [0008] [0010] [0012] [0014] [0015] [0018] [0033] [0040] [0041] [0042] [0043]).

Greenwald fails to explicitly disclose a system for adjusting a price for a security, said price having a spread and wherein the system comprises:

a price adjustment module in communications with said pricing engine for adjusting said spread provided to said client based on the at least one past trade.

Madhavan discloses a system for adjusting a price for a security, said price having a spread and wherein the system comprises (Madhavan, pg. 607, abstract, pg. 612-613, "Quote-Driven Mechanism" price quotes are adjustable and are influenced by trading history, order size etc.):

a price adjustment module in communications with said pricing engine for adjusting said spread provided to said client based on the at least one past trade (Madhavan, pg. 615-616, "The Bid-Ask Spread Measures the Costs of Trading"; pg. 618-619, order size and frequency of past trades effect the bid-ask spread).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Applicant's prior art disclosure, Greenwald and Madhavan to provide a system for adjusting a price for a security, said price having a spread, comprising: a pricing engine for providing to a client a price quote for said security; a past trades database for storing information regarding at least one past trade executed by the client; a price quote log for storing information regarding at least one

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past price quote received by the client; a price adjustment module in communications with said pricing engine for adjusting said spread provided to said client based on the information regarding the at least one past trade and the at least one past price quote.

As suggested by Greenwald, one would have been motivated provide complete and accurate information in an efficient manner and to avoid time delays in providing price quotes to trades. Furthermore, one would have been motivated because traders are interested in increasing profits and past trades provide data useful for creating effective strategies to improve profits over time.

**Re Claim 18:** Applicant admits the prior art discloses a method comprising the steps of: storing information regarding at least one past trade executed by the client (Applicant Disclosure, pg. 2, lines 8-11, applicant admits the system may provide more favorable pricing to clients based on past trade business (e.g., the volume of past trades)).

Applicant fails to admit the prior art discloses a method for adjusting a price for a security provided to a client, said price having a spread, comprising the steps of: storing information regarding at least one past price quote received by the client; and automatically adjusting said spread based on the information regarding at least one past trade and the at least one past price quote.

Greenwald discloses a method comprising the steps of:  
storing information regarding at least one past price quote received by the client  
(Greenwald, abstract, Figs. 1-3, [0002] [0003] [0004] [0005] [0008] [0010] [0012] [0014] [0015] [0018] [0033] [0040] [0041] [0042] [0043]); and

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automatically adjusting said spread based on the information regarding at least one past price quote (Greenwald, abstract, Figs. 1-3, [0002] [0003] [0004] [0005] [0008] [0010] [0012] [0014] [0015] [0018] [0033] [0040] [0041] [0042] [0043]).

Greenwald fails to explicitly disclose a method for adjusting a price for a security provided to a client, said price having a spread, comprising the steps of:

adjusting said spread based on the information regarding the at least one past trade.

Madhavan discloses a method for adjusting a price for a security provided to a client, said price having a spread, comprising the steps of (Madhavan, pg. 607, abstract, pg. 612-613, "Quote-Driven Mechanism" price quotes are adjustable and are influenced by trading history, order size etc.):

adjusting said spread based on the information regarding the at least one past trade (Madhavan, pg. 615-616, "The Bid-Ask Spread Measures the Costs of Trading"; pg. 618-619, order size and frequency of past trades effect the bid-ask spread).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Applicant's prior art disclosure, Greenwald and Madhavan to provide a method for adjusting a price for a security provided to a client, said price having a spread, comprising the steps of: storing information regarding at least one past trade executed by the client; storing information regarding at least one past price quote received by the client; and automatically adjusting said spread based on the information regarding the at least one past trade and the at least one past price quote.

As suggested by Greenwald, one would have been motivated provide complete and accurate information in an efficient manner and to avoid time delays in providing price quotes to trades. Furthermore, one would have been motivated because traders are interested in increasing profits and past trades provide data useful for creating effective strategies to improve profits over time.

**Re Claim 2 and 19:** (Cancelled)

**Re Claim 3,4, 20 and 21:** Applicant's disclosure fails to admit a prior art system/method wherein: said spread is adjusted in an increment and wherein said increment is a multiple of a pip.

Madhavan discloses a system/method for adjusting said spread (Madhavan, pg. 615-616, "The Bid-Ask Spread Measures the Costs of Trading"; pg. 618-619 Inherently, the adjustment could be for any amount). Madhavan fails to explicitly disclose a system/method wherein: said spread is adjusted in an increment and wherein said increment is a multiple of a pip. It would have been obvious to one having ordinary skill in the art at the time the invention was made modify the teachings of Applicant's prior art disclosure, Greenwald and Madhavan to adjust said spread in an increment and wherein said increment is a multiple of a pip. These differences are merely design preference. In re Kuhle, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975).

**Re Claim 35:** Applicant admits the prior art discloses an automated trading system comprising:

a pricing engine for providing to a client a price quote for said security (Applicant Disclosure, pg.1, lines 14+ -pg. 2, lines 1-2, Fig. 1);



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a past trades database for storing information regarding at least one past trade executed by the client (Applicant Disclosure, pg. 2, lines 8-11, applicant admits the system may provide more favorable pricing to clients based on past trade business (e.g., the volume of past trades));

Applicant fails to admit the prior art discloses a system for adjusting a price for a security, said price having a spread, comprising:

a price adjustment module in communications with said pricing engine for adjusting said spread provided to said client based on a trading pattern of the client derived from the information regarding the at least one past trade.

Madhavan discloses a system for adjusting a price for a security, said price having a spread, comprising (Madhavan, pg. 607, abstract, pg. 612-613, "Quote-Driven Mechanism" price quotes are adjustable and are influenced by trading history, order size etc.):

a price adjustment module in communications with said pricing engine for adjusting said spread provided to said client based on a trading pattern of the client derived from the information regarding the at least one past trade (Madhavan, pg. 615-616, "The Bid-Ask Spread Measures the Costs of Trading"; pg. 618-619, order size and frequency of past trades effect the bid-ask spread).

Madhavan fails to explicitly disclose a system wherein adjusting the price for a security occurs automatically. Greenwald discloses a system wherein adjusting the price for a security occurs automatically (Greenwald, abstract, Figs. 1-3, [0002] [0003]

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[0004] [0005] [0008] [0010] [0012] [0014] [0015] [0018] [0033] [0040] [0041] [0042]  
[0043]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of applicant's prior art disclosure, Greenwald and Madhavan to provide a system for adjusting a price for a security, said price having a spread, comprising: a pricing engine for providing to a client a price quote for said security; a past trades database for storing information regarding at least one past trade executed by the client; a price adjustment module in communications with said pricing engine for adjusting said spread provided to said client based on a trading pattern of the client derived from the information regarding the at least one past trade.

As suggested by Greenwald, one would have been motivated provide complete and accurate information in an efficient manner and to avoid time delays in providing price quotes to trades. One would have been motivated because traders are interested in increasing profits and past trades provide data useful for creating effective strategies to improve profits over time.

**Re Claim 36:** Applicant admits the prior art discloses a method comprising the steps of: storing information regarding at least one past trade executed by the client (Applicant Disclosure, pg. 2, lines 8-11, applicant admits the system may provide more favorable pricing to clients based on past trade business (e.g., the volume of past trades)).

Applicant fails to admit the prior art discloses a method for adjusting a price for a security provided to a client, said price having a spread, comprising the steps of:

automatically adjusting said spread based on a trading pattern of the client derived from the information regarding the at least one past trade.

Madhavan discloses a method for adjusting a price for a security provided to a client, said price having a spread, comprising the steps of (Madhavan, pg. 607, abstract, pg. 612-613, "Quote-Driven Mechanism" price quotes are adjustable and are influenced by trading history, order size etc.):

adjusting said spread based on a trading pattern of the client derived from the information regarding the at least one past trade (Madhavan, pg. 615-616, "The Bid-Ask Spread Measures the Costs of Trading"; pg. 618-619, order size and frequency of past trades effect the bid-ask spread).

Madhavan fails to explicitly disclose a method wherein the adjusting occurs automatically. Greenwald discloses a method wherein the adjusting occurs automatically (Greenwald, abstract, Figs. 1-3, [0002] [0003] [0004] [0005] [0008] [0010] [0012] [0014] [0015] [0018] [0033] [0040] [0041] [0042] [0043]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Applicant's prior art disclosure, Greenwald and Madhavan to provide a method for adjusting a price for a security provided to a client, said price having a spread, comprising the steps of: storing information regarding at least one past trade executed by the client; automatically adjusting said spread based on a trading pattern of the client derived from the information regarding the at least one past trade.

As suggested by Greenwald, one would have been motivated provide complete and accurate information in an efficient manner and to avoid time delays in providing price quotes to trades. One would have been motivated because traders are interested in increasing profits and past trades provide data useful for creating effective strategies to improve profits over time.

**Re Claim 37:** Applicant admits the prior art discloses an automated trading system comprising:

means for storing information regarding at least one past trade executed by the client (Applicant Disclosure, pg.1, lines 14+ -pg. 2, lines 1-2, Fig. 1);

Applicant fails to admit a system for adjusting a price for a security provided to a client, said price having a spread, comprising:

means for automatically adjusting said spread based on a trading pattern of the client derived from the information regarding the at least one past trade.

Madhavan discloses a system for adjusting a price for a security provided to a client, said price having a spread, comprising (Madhavan, pg. 607, abstract, pg. 612-613, "Quote-Driven Mechanism" price quotes are adjustable and are influenced by trading history, order size etc.):

means for adjusting said spread based on a trading pattern of the client derived from the information regarding the at least one past trade (Madhavan, pg. 615-616, "The Bid-Ask Spread Measures the Costs of Trading"; pg. 618-619, order size and frequency of past trades effect the bid-ask spread).

Madhavan fails to explicitly disclose a system wherein adjusting the price for a security occurs automatically. Greenwald discloses a system wherein adjusting the price for a security occurs automatically (Greenwald, abstract, Figs. 1-3, [0002] [0003] [0004] [0005] [0008] [0010] [0012] [0014] [0015] [0018] [0033] [0040] [0041] [0042] [0043]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Applicant's prior art disclosure, Greenwald and Madhavan to provide a system for adjusting a price for a security provided to a client, said price having a spread, comprising: means for storing information regarding at least one past trade executed by the client; means for automatically adjusting said spread based on a trading pattern of the client derived from the information regarding the at least one past trade.

As suggested by Greenwald, one would have been motivated provide complete and accurate information in an efficient manner and to avoid time delays in providing price quotes to trades. One would have been motivated because traders are interested in increasing profits and past trades provide data useful for creating effective strategies to improve profits over time.

**Re Claim 38:** Applicant admits the prior art discloses an automated trading system comprising:

a pricing engine for providing to a client a price quote for said security (Applicant Disclosure, pg.1, lines 14+ -pg. 2, lines 1-2, Fig. 1);

a past trades database for storing information regarding at least one past trade executed by the client (Applicant Disclosure, pg. 2, lines 8-11, applicant admits the system may provide more favorable pricing to clients based on past trade business (e.g., the volume of past trades));

Applicant fails to admit a system for adjusting a price for a security, said price having a spread, comprising:

a price adjustment module in communications with said pricing engine for adjusting said spread provided to said client based on profits generated from the client, the profits generated being determined from the information regarding the at least one past trade.

Madhavan discloses a system for adjusting a price for a security, said price having a spread, comprising (Madhavan, pg. 607, abstract, pg. 612-613, "Quote-Driven Mechanism" price quotes are adjustable and are influenced by trading history, order size etc.):

a price adjustment module in communications with said pricing engine for adjusting said spread provided to said client based on profits generated from the client, the profits generated being determined from the information regarding the at least one past trade (Madhavan, pg. 615-616, "The Bid-Ask Spread Measures the Costs of Trading"; pg. 618-619, order size and frequency of past trades effect the bid-ask spread).

Madhavan fails to explicitly disclose a system wherein adjusting the price for a security occurs automatically. Greenwald discloses a system wherein adjusting the price for a security occurs automatically (Greenwald, abstract, Figs. 1-3, [0002] [0003]

[0004] [0005] [0008] [0010] [0012] [0014] [0015] [0018] [0033] [0040] [0041] [0042]  
[0043]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Applicant's prior art disclosure, Greenwald and Madhavan to provide a system for adjusting a price for a security, said price having a spread, comprising: a pricing engine for providing to a client a price quote for said security; a past trades database for storing information regarding at least one past trade executed by the client; a price adjustment module in communications with said pricing engine for adjusting said spread provided to said client based on profits generated from the client, the profits generated being determined from the information regarding the at least one past trade.

As suggested by Greenwald, one would have been motivated provide complete and accurate information in an efficient manner and to avoid time delays in providing price quotes to trades. One would have been motivated because traders are interested in increasing profits and past trades provide data useful for creating effective strategies to improve profits over time.

**Re Claim 39:** Applicant admits the prior art discloses a method comprising the steps of: storing information regarding at least one past trade executed by the client (Applicant Disclosure, pg. 2, lines 8-11, applicant admits the system may provide more favorable pricing to clients based on past trade business (e.g., the volume of past trades)).

Applicant fails to admit a method for adjusting a price for a security provided to a client, said price having a spread, comprising the steps of:

automatically adjusting said spread based on profits generated from the client, the profits generated being determined from the information regarding the at least one past trade.

Madhavan discloses a method for adjusting a price for a security provided to a client, said price having a spread, comprising the steps of (Madhavan, pg. 607, abstract, pg. 612-613, "Quote-Driven Mechanism" price quotes are adjustable and are influenced by trading history, order size etc.):

adjusting said spread based on profits generated from the client, the profits generated being determined from the information regarding the at least one past trade (Madhavan, pg. 615-616, "The Bid-Ask Spread Measures the Costs of Trading"; pg. 618-619, order size and frequency of past trades effect the bid-ask spread).

Madhavan fails to explicitly disclose a method wherein the adjusting occurs automatically. Greenwald discloses a method wherein the adjusting occurs automatically (Greenwald, abstract, Figs. 1-3, [0002] [0003] [0004] [0005] [0008] [0010] [0012] [0014] [0015] [0018] [0033] [0040] [0041] [0042] [0043]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Applicant's prior art disclosure, Greenwald and Madhavan to provide a method for adjusting a price for a security provided to a client, said price having a spread, comprising the steps of: storing information regarding at least one past trade executed by the client; automatically adjusting said spread based on profits generated from the client, the profits generated being determined from the information regarding the at least one past trade.



As suggested by Greenwald, one would have been motivated provide complete and accurate information in an efficient manner and to avoid time delays in providing price quotes to trades. One would have been motivated because traders are interested in increasing profits and past trades provide data useful for creating effective strategies to improve profits over time.

**Re Claim 40:** Applicant admits the prior art discloses an automated trading system comprising:

means for storing information regarding at least one past trade executed by the client (Applicant Disclosure, pg. 2, lines 8-11, applicant admits the system may provide more favorable pricing to clients based on past trade business (e.g., the volume of past trades)).

Applicant fails to admit a system for adjusting a price for a security provided to a client, said price having a spread, comprising:

means for adjusting said spread based on profits generated from the client, the profits generated being determined from the information regarding the at least one past trade.

Madhavan discloses a system for adjusting a price for a security provided to a client, said price having a spread, comprising (Madhavan, pg. 607, abstract, pg. 612-613, "Quote-Driven Mechanism" price quotes are adjustable and are influenced by trading history, order size etc.):

means for automatically adjusting said spread based on profits generated from the client, the profits generated being determined from the information regarding the at

least one past trade (Madhavan, pg. 615-616, "The Bid-Ask Spread Measures the Costs of Trading"; pg. 618-619, order size and frequency of past trades effect the bid-ask spread).

Madhavan fails to explicitly disclose a system wherein the adjusting occurs automatically. Greenwald discloses a system wherein the adjusting occurs automatically (Greenwald, abstract, Figs. 1-3, [0002] [0003] [0004] [0005] [0008] [0010] [0012] [0014] [0015] [0018] [0033] [0040] [0041] [0042] [0043]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Applicant's prior art disclosure, Greenwald and Madhavan to provide a system for adjusting a price for a security provided to a client, said price having a spread, comprising: means for storing information regarding at least one past trade executed by the client; means for automatically adjusting said spread based on profits generated from the client, the profits generated being determined from the information regarding the at least one past trade.

As suggested by Greenwald, one would have been motivated provide complete and accurate information in an efficient manner and to avoid time delays in providing price quotes to trades. One would have been motivated because traders are interested in increasing profits and past trades provide data useful for creating effective strategies to improve profits over time.

**Claims 5-17 and 22-34** are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admission of Prior Art in view of Greenwald, US Pub. No.

2002/0161693 and in view of Madhavan, "Trading Mechanisms in Securities Markets," The Journal of Finance, Vol. 47, No. 2 (Jun., 1992), pp. 607-641 (hereinafter, Madhavan) as applied to claims 1 and 18 above and further in view of Flood et.al., "Quote Disclosure and Price Discovery in Multiple-Dealer Financial Markets," The Review of Financial Studies, Vol. 12, No. 1 (Spring, 1999), pp. 37-59 (hereinafter, Flood).

**Re Claim 5 and 22:** Applicant's disclosure admits a prior art system/method wherein a number of price quotes from said pricing engine are provided to the client, the price quotes coming from a discrete number of pricing levels (Applicant disclosure, pg. 2, lines 6-8); and

a number of trades from said past trade database the client has executed (Applicant Disclosure, pg. 2, lines 8-11, applicant admits the system may provide more favorable pricing to clients based on past trade business (e.g., the volume of past trades)); and wherein the number of trades by the client influences the price quote a client receives from one of a discrete number of pricing levels (Applicant disclosure, pg. 2, lines 6-11).

Applicant's disclosure fails to admit a prior art system/method wherein said price adjustment module receives from said price quote log a number of price quotes said pricing engine has provided the client; and

wherein said price adjustment module causes said spread to be adjusted based on a ratio of said number of trades to said number of price quotes.

Madhavan discloses a system/method wherein said price adjustment module receives from said price quote log a number of price quotes said pricing engine has provided the

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client (Madhavan, pg. 613, a system/method wherein prices can be adjusted or revised and wherein the decision is based on data from prior trading history. The prior trading history inherently includes a history of the price quotes/price quote log). Madhavan discloses a system/method for adjusting said spread (Madhavan, pg. 615-616, "The Bid-Ask Spread Measures the Costs of Trading"; pg. 618-619). Madhavan fails to explicitly wherein said price adjustment module causes said spread to be adjusted based on a ratio of said number of trades to said number of price quotes.

Flood discloses a system/method wherein "the spread will widen to compensate the dealer for losses to informed traders" and "widen, rather than narrow, spreads to better filter information from their trades (Flood, pg. 49)." Flood discloses a system/method wherein "dealers should narrow spreads to attract informed order flow" (Flood, pg. 49). Flood fails to explicitly disclose a system/method wherein said price adjustment module causes said spread to be adjusted based on a ratio of said number of trades to said number of price quotes.

Official Notice is taken that it is old and well-known to adjust a business strategy based on a review of past transactions. For example, a seller may realize at a given price he sells a significant number of products. The seller may find however, if the seller raises the price incrementally, a few buyers may choose not to buy, but the losses from the buyers who left might not entirely offset the gains from the increased price. The result would be higher profits. Similarly, one would be inclined to adjust the price if the number of trades relative to the number of price quotes is less profitable.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of applicants prior art disclosure, Greenwald, Madhavan and Flood wherein said price adjustment module receives from said price quote log a number of price quotes said pricing engine has provided the client and a number of trades from said past trade database the client has executed and wherein said price adjustment module causes said spread to be adjusted based on a ratio of said number of trades to said number of price quotes. One would have been motivated to find the most profitable price at which to trade.

**Re Claim 6 and 23:** Applicant's disclosure fails to admit a prior art system/method wherein when if said ratio is greater than one-half, then said price adjustment module causes said spread to be widened by said increment. Flood discloses and system/method wherein "the spread will widen to compensate the dealer for losses to informed traders" and "widen, rather than narrow, spreads to better filter information from their trades (Flood, pg. 49)." Flood fails to explicitly disclose as system/method wherein when if said ratio is greater than one-half, then said price adjustment module causes said spread to be widened by said increment.

Official Notice is taken that it is old and well-known that if there are high number of trades for a given price, adjusting the price for subsequent trades may result in increased profits. For example, products are tested at different price points. If the seller raises the price incrementally, a few buyers may choose not to buy, but the losses from the buyers who left may not entirely offset the gains from the increased in price. The result would be higher profits. If the ratio of said number of trades to said number of

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price quotes is greater than one-half, it is indicative of a relatively high number of trades for a given price quote. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine and modify the teachings of Applicant's prior art disclosure, Greenwald, Madhavan and Flood because as Flood suggests, widening the spread would have a comparable effect to raising the price, it would reduce losses to informed traders and filter information from the trades.

**Re Claim 7 and 24:** Applicant's disclosure fails to admit a prior art system/method wherein when if said ratio is less than one-half, then said price adjustment module causes said spread to be narrowed by said increment. Flood discloses a system/method wherein "dealers should narrow spreads to attract informed order flow" (Flood, pg. 49). Flood fails to disclose a system/method wherein when if said ratio is less than one-half, then said price adjustment module causes said spread to be narrowed by said increment.

Official Notice is taken that it is old and well-known that if there are low number of trades for a given price, to adjust the price for subsequent trades if it will result in increased profits. For example, products are tested at different price points. If the seller lowers the price incrementally, more buyers may choose to buy, but the losses from the lower price may not entirely offset the gains from the increase in new buyers. The result would be higher profits. If the ratio of said number of trades to said number of price quotes is less than one-half, it is indicative of a relatively low number of trades for a given price quote. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Applicant's prior art disclosure,

Greenwald, Madhavan and Flood because as Flood suggests, narrowing the spread would have a comparable effect to lowering the price, it would attract informed order flow.

**Re Claim 8 and 25:** Applicant's disclosure admits a prior art system/method wherein a number of price quotes from said pricing engine are provided to the client, the price quotes coming from a discrete number of pricing levels (Applicant disclosure, pg. 2, lines 6-8); and

a number of trades from said past trade database the client has executed (Applicant Disclosure, pg. 2, lines 8-11, applicant admits the system may provide more favorable pricing to clients based on past trade business (e.g., the volume of past trades)); and wherein the number of trades by the client influences the price quote a client receives from one of a discrete number of pricing levels (Applicant disclosure, pg. 2, lines 6-11).

Applicant's disclosure fails to admit a prior art system/method wherein said price adjustment module receives from said price quote log a number of bid price quotes said pricing engine has provided the client; and

wherein said price adjustment module causes said spread to be adjusted based on a ratio of said number of trades executed at a bid price to said number of bid price quotes.

Madhavan discloses a system/method wherein said price adjustment module receives from said price quote log a number of bid price quotes said pricing engine has provided the client (Madhavan, pg. 613, a system wherein prices can be adjusted or revised and wherein the decision is based on data from prior trading history. The prior trading history inherently includes a history of the price quotes/price quote log). Madhavan discloses a

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system/method for adjusting said spread (Madhavan, pg. 615-616, "The Bid-Ask Spread Measures the Costs of Trading"; pg. 618-619). Madhavan fails to explicitly disclose a system/method wherein said price adjustment module causes said spread to be adjusted based on a ratio of said number of trades executed at a bid price to said number of bid price quotes.

Flood discloses a system/method "the spread will widen to compensate the dealer for losses to informed traders" and "widen, rather than narrow, spreads to better filter information from their trades (Flood, pg. 49)." Flood discloses "dealers should narrow spreads to attract informed order flow" (Flood, pg. 49). Flood fails to explicitly disclose a system/method wherein said price adjustment module causes said spread to be adjusted based on a ratio of said number of trades executed at a bid price to said number of bid price quotes.

Official Notice is taken that it is old and well-known to adjust a business strategy based on a review of past transactions. For example, a seller may realize at a given price he sells a significant number of products. The seller may find however, if the seller raises the price incrementally, a few buyers may choose not to buy, but the losses from the buyers who left might not entirely offset the gains from the increased price. The result would be higher profits. Similarly, one would be inclined to adjust the spread if the number of trades executed at a bid price relative to the number of bid price quotes is less profitable. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of applicants prior art disclosure, Greenwald,



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Madhavan and Flood for the purpose of finding the most profitable price at which to trade.

**Re Claim 9 and 26:** Applicant's disclosure fails to admit a prior art system/method wherein said spread has a bid price and wherein said spread is adjusted by adjusting said bid price. Madhavan discloses a system/method wherein said spread has a bid price (Madhavan, pg. 615, "The Bid-Ask Spread Measures the Cost of Trading", the spread has a bid and an ask price). Madhavan fails to explicitly disclose a system/method wherein said spread is adjusted by adjusting said bid price. Flood discloses a system/method wherein "the spread will widen to compensate the dealer for losses to informed traders" and "widen, rather than narrow, spreads to better filter information from their trades (Flood, pg. 49)." Flood discloses a system/method wherein "dealers should narrow spreads to attract informed order flow" (Flood, pg. 49). Flood fails to explicitly disclose a system/method wherein said spread is adjusted by adjusting said bid price.

Official Notice is taken that it is old and well-known that in order adjust a range, the higher variable, the lower variable or both must changed. For example, ranges are used for classifying income tax brackets, high/low prices for the sale of goods and the ranges can be adjusted by modifying the higher or lower variables. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of applicant's prior art disclosure, Greenwald, Madhavan and Flood to provide a system/method wherein a spread has a bid price and wherein said spread is adjusted by adjusting said bid price. As suggested by Madhavan a spread has a bid price and an

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ask price, Flood suggested that spread can be adjusted by widening or narrowing it, and it is old and well known that to adjust (e.g., widen/narrow) a spread one must adjust either variable, or both variable (e.g., bid price, ask price).

**Re Claim 10 and 27:** Applicant's disclosure admits a prior art system/method wherein a number of price quotes from said pricing engine are provided to the client, the price quotes coming from a discrete number of pricing levels (Applicant disclosure, pg. 2, lines 6-8); and

a number of trades from said past trade database the client has executed (Applicant Disclosure, pg. 2, lines 8-11, applicant admits the system may provide more favorable pricing to clients based on past trade business (e.g., the volume of past trades)); and wherein the number of trades by the client influences the price quote a client receives from one of a discrete number of pricing levels (Applicant disclosure, pg. 2, lines 6-11).

Applicant's disclosure fails to admit a prior art system/method wherein said price adjustment module receives from said price quote log a number of ask price quotes said pricing engine has provided the client; and wherein said price adjustment module causes said spread to be adjusted based on a ratio of said number of trades executed at an ask price to said number of ask price quotes.

Madhaven discloses a system/method wherein said price adjustment module receives from said price quote log a number of ask price quotes said pricing engine has provided the client (Madhavan, pg. 613, a system wherein prices can be adjusted or revised and wherein the decision is based on data from prior trading history. The prior trading history

inherently includes a history of the price quotes/price quote log). Madhavan discloses a system/method for adjusting said spread (Madhavan, pg. 615-616, "The Bid-Ask Spread Measures the Costs of Trading"; pg. 618-619). Madhavan fails to explicitly disclose a system/method wherein said price adjustment module causes said spread to be adjusted based on a ratio of said number of trades executed at an ask price to said number of ask price quotes.

Flood discloses as system/method wherein "the spread will widen to compensate the dealer for losses to informed traders" and "widen, rather than narrow, spreads to better filter information from their trades (Flood, pg. 49)." Flood discloses a system/method wherein "dealers should narrow spreads to attract informed order flow" (Flood, pg. 49). Flood fails to explicitly disclose a system/method wherein said price adjustment module causes said spread to be adjusted based on a ratio of said number of trades executed at an ask price to said number of ask price quotes.

Official Notice is taken that it is old and well-known to adjust a business strategy based on a review of past transactions. For example, a seller may realize at a given price he sells a significant number of products. The seller may find however, if the seller raises the price incrementally, a few buyers may choose not to buy, but the losses from the buyers who left might not entirely offset the gains from the increased price. The result would be higher profits. Similarly, one would be inclined to adjust the price if the number of trades relative to the number of price quotes is less profitable. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of applicants prior art disclosure, Greenwald, Madhavan and Flood to provide

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a system/method wherein said price adjustment module receives from said price quote log a number of ask price quotes said pricing engine has provided the client and said price adjustment module receives from said past trade database a number of trades executed at an ask price by the client and wherein said price adjustment module causes said spread to be adjusted based on a ratio of said number of trades executed at an ask price to said number of ask price quotes. One would have been motivated to find the most profitable price at which to trade.

**Re Claims 11 and 28:** Applicant's disclosure fails to admit a prior art system/method wherein said spread has an ask price and wherein said spread is adjusted by adjusting said ask price. Madhavan discloses a system/method wherein said spread has a ask price (Madhavan, pg. 615, "The Bid-Ask Spread Measures the Cost of Trading", the spread has a bid and an ask price). Madhavan fails to explicitly disclose a system/method wherein said spread is adjusted by adjusting said ask price. Flood discloses a system/method wherein "the spread will widen to compensate the dealer for losses to informed traders" and "widen, rather than narrow, spreads to better filter information from their trades (Flood, pg. 49)." Flood discloses a system/method wherein "dealers should narrow spreads to attract informed order flow" (Flood, pg. 49). Flood fails to explicitly disclose a system/method wherein said spread is adjusted by adjusting said ask price. Official Notice is taken that it is old and well-known that in order adjust a range, the higher variable, the lower variable or both must changed. For example, ranges are used for classifying income tax brackets, high/low prices for the sale of goods and these ranges can be adjusted by modifying the higher or lower

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variables. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of applicant's prior art disclosure, Greenwald, Madhaven and Flood a system/method wherein a spread has a bid price and wherein said spread is adjusted by adjusting said bid price. As suggested by Madhavan a spread has a bid price and an ask price, as Flood suggests that spread can be adjusted by widening or narrowing it, and it is old and well known that to adjust (e.g., widen/narrow) a spread one must adjust either variable, or both variable (e.g., bid price, ask price).

**Re Claim 12 and 29:** Applicant's disclosure admits a prior art system/method wherein a number of price quotes from said pricing engine are provided to the client, the price quotes coming from a discrete number of pricing levels (Applicant disclosure, pg. 2, lines 6-8); and

a number of trades from said past trade database the client has executed (Applicant Disclosure, pg. 2, lines 8-11, applicant admits the system may provide more favorable pricing to clients based on past trade business (e.g., the volume of past trades)); and wherein the number of trades by the client influences the price quote a client receives from one of a discrete number of pricing levels (Applicant disclosure, pg. 2, lines 6-11).

Applicant's disclosure fails to admit a prior art system/method wherein said price adjustment module receives from said price quote log a number of ask price quotes said pricing engine has provided the client; and wherein said price adjustment module causes said spread to be adjusted based on a ratio of said number of trades executed at an ask price to said number of ask price

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quotes.

wherein said price adjustment module receives from said price quote log a number of ask price quotes said pricing engine has provided the client; and wherein said price adjustment module causes said spread to be adjusted

based on a ratio of said number of trades executed at an ask price to said number of ask price quotes.

Madhavan discloses a system/method wherein said price adjustment module receives from said price quote log a number of ask price quotes said pricing engine has provided the client (Madhavan, pg. 613, a system wherein prices can be adjusted or revised and wherein the decision is based on data from prior trading history. The prior trading history inherently includes a history of the price quotes/price quote log). Madhavan discloses a system for adjusting said spread (Madhavan, pg. 615-616, "The Bid-Ask Spread Measures the Costs of Trading"; pg. 618-619). Madhavan fails to explicitly disclose a system/method wherein said price adjustment module causes said spread to be adjusted based on a ratio of said number of trades executed at an ask price to said number of ask price quotes.

Flood discloses a system/method wherein "the spread will widen to compensate the dealer for losses to informed traders" and "widen, rather than narrow, spreads to better filter information from their trades (Flood, pg. 49)." Flood discloses a system method wherein "dealers should narrow spreads to attract informed order flow" (Flood, pg. 49). Flood fails to explicitly disclose wherein said price adjustment module causes said

spread to be adjusted based on a ratio of said number of trades executed at an ask price to said number of ask price quotes.

Official Notice is taken that it is old and well-known to adjust a business strategy based on a review of past transactions. For example, a seller may realize at a given price he sells a significant number of products. The seller may find however, if the seller raises the price incrementally, a few buyers may choose not to buy, but the losses from the buyers who left might not entirely offset the gains from the increased price. The result would be higher profits. Similarly, one would be inclined to adjust the price if the number of trades relative to the number of price quotes is less profitable. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of applicants prior art disclosure, Greenwald, Madhavan and Flood to provide a system/method wherein said price adjustment module receives from said price quote log a number of ask price quotes said pricing engine has provided the client and said price adjustment module receives from said past trade database a number of trades executed at an ask price by the client and wherein said price adjustment module causes said spread to be adjusted based on a ratio of said number of trades executed at an ask price to said number of ask price quotes. One would have been motivated to find the most profitable price at which to trade.

**Re Claim 13 and 30:** Applicant's disclosure fails to admit a prior art system/method wherein said spread has an ask price and said ratio of said number of trades executed at a bid price to said number of bid price quotes is less than said ratio of said number of

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trades executed at an ask price to said number of ask price quotes and wherein said spread is adjusted by increasing said ask price.

Madhavan discloses a system/method wherein said spread has a ask price (Madhavan, pg. 615, "The Bid-Ask Spread Measures the Cost of Trading", the spread has a bid and an ask price). Madhavan fails to explicitly disclose a system/method wherein said ratio of said number of trades executed at a bid price to said number of bid price quotes is less than said ratio of said number of trades executed at an ask price to said number of ask price quotes; and wherein said spread is adjusted by increasing said ask price.

Flood discloses a system/method wherein "the spread will widen to compensate the dealer for losses to informed traders" and "widen, rather than narrow, spreads to better filter information from their trades (Flood, pg. 49)." Flood discloses a system/method "dealers should narrow spreads to attract informed order flow" (Flood, pg. 49). Flood fails to explicitly disclose a system/method wherein said ratio of said number of trades executed at a bid price to said number of bid price quotes is less than said ratio of said number of trades executed at an ask price to said number of ask price quotes; and wherein said spread is adjusted by increasing said ask price.

Official Notice is taken that it is old and well-known to adjust a business strategy based on a review of past transactions. For example, a seller may realize at a given price he sells a significant number of products. The seller may find however, if the seller raises the price incrementally, a few buyers may choose not to buy, but the losses from the buyers who left might not entirely offset the gains from the increased price. The result



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would be higher profits. Similarly, one would be inclined to adjust the price if the number of trades executed at a bid price to said number of bid price quotes is less than said ratio of said number of trades executed at an ask price to said number of ask price quotes proves to be less profitable.

Official Notice is taken that it is old and well-known that in order adjust a range, the higher variable, the lower variable or both must changed. For example, ranges are used for classifying income tax brackets, high/low prices for the sale of goods and these ranges can be adjusted by modifying the higher or lower variables.

It would have been obvious to one of ordinary skill in the art at the time of the invention modify applicant's prior art disclosure, Greenwald, Madhavan and Flood to provide a system/method wherein said spread has an ask price and said ratio of said number of trades executed at a bid price to said number of bid price quotes is less than said ratio of said number of trades executed at an ask price to said number of ask price quotes and wherein said spread is adjusted by increasing said ask price. One would have been motivated to find the most profitable price at which to trade.

**Re Claim 14 and 31:** Applicant's prior art disclosure fails to disclose a system/method wherein said spread has a bid price and said ratio of said number of trades executed at a bid price to said number of bid price quotes is less than said ratio of said number of trades executed at an ask price to said number of ask price quotes and wherein said spread is adjusted by increasing said bid price.

Madhavan discloses a system/method wherein said spread has a bid price (Madhavan, pg. 615, "The Bid-Ask Spread Measures the Cost of Trading", the spread has a bid and

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an ask price). Madhavan fails to explicitly disclose a system/method wherein said ratio of said number of trades executed at a bid price to said number of bid price quotes is less than said ratio of said number of trades executed at an ask price to said number of ask price quotes; and wherein said spread is adjusted by increasing said bid price.

Flood discloses a system/method wherein "the spread will widen to compensate the dealer for losses to informed traders" and "widen, rather than narrow, spreads to better filter information from their trades (Flood, pg. 49)." Flood discloses a system/method wherein "dealers should narrow spreads to attract informed order flow" (Flood, pg. 49).

Flood fails to explicitly disclose a system/method wherein said ratio of said number of trades executed at a bid price to said number of bid price quotes is less than said ratio of said number of trades executed at an ask price to said number of ask price quotes; and wherein said spread is adjusted by increasing said bid price.

Official Notice is taken that it is old and well-known to adjust a business strategy based on a review of past transactions. For example, a seller may realize at a given price he sells a significant number of products. The seller may find however, if the seller raises the price incrementally, a few buyers may choose not to buy, but the losses from the buyers who left might not entirely offset the gains from the increased price. The result would be higher profits. Similarly, one would be inclined to adjust the price if the number of trades executed at a bid price to said number of bid price quotes is less than said ratio of said number of trades executed at an ask price to said number of ask price quotes proves to be less profitable.

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Official Notice is taken that it is old and well-known that in order adjust a range, the higher variable, the lower variable or both must be changed. For example, ranges are used for classifying income tax brackets, high/low prices for the sale of goods and these ranges can be adjusted by modifying the higher or lower variables.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify applicant's prior art disclosure, Greenwald, Madhavan and Flood to provide a system/method wherein said spread has a bid price and said ratio of said number of trades executed at a bid price to said number of bid price quotes is less than said ratio of said number of trades executed at an ask price to said number of ask price quotes and wherein said spread is adjusted by increasing said bid price. One would have been motivated to find the most profitable price at which to trade.

**Re Claim 15 and 32:** Applicant's prior art disclosure fails to disclose a system/method wherein said spread has a bid price and said ratio of said number of trades executed at a bid price to said number of bid price quotes is greater than said ratio of said number of trades executed at an ask price to said number of ask price quotes and wherein said spread is adjusted by increasing said bid price.

Madhavan discloses a system/method wherein said spread has a bid price (Madhavan, pg. 615, "The Bid-Ask Spread Measures the Cost of Trading", the spread has a bid and an ask price). Madhavan fails to explicitly disclose a system/method wherein said ratio of said number of trades executed at a bid price to said number of bid price quotes is greater than said ratio of said number of trades executed at an ask price to said number of ask price quotes and wherein said spread is adjusted by increasing said bid price.

Flood discloses a system/method wherein “the spread will widen to compensate the dealer for losses to informed traders” and “widen, rather than narrow, spreads to better filter information from their trades (Flood, pg. 49).” Flood discloses a system/method wherein the “dealers should narrow spreads to attract informed order flow” (Flood, pg. 49). Flood fails to explicitly disclose a system/method wherein said ratio of said number of trades executed at a bid price to said number of bid price quotes is greater than said ratio of said number of trades executed at an ask price to said number of ask price quotes and wherein said spread is adjusted by increasing said bid price.

Official Notice is taken that it is old and well-known to adjust a business strategy based on a review of past transactions. For example, a seller may realize at a given price he sells a significant number of products. The seller may find however, if the seller raises the price incrementally, a few buyers may choose not to buy, but the losses from the buyers who left might not entirely offset the gains from the increased price. The result would be higher profits. Similarly, one would be inclined to adjust the price if the number of trades executed at a bid price to said number of bid price quotes is less than said ratio of said number of trades executed at an ask price to said number of ask price quotes proves to be less profitable.

Official Notice is taken that it is old and well-known that in order adjust a range, the higher variable, the lower variable or both must changed. For example, ranges are used for classifying income tax brackets, high/low prices for the sale of goods and these ranges can be adjusted by modifying the higher or lower variables.

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It would have been obvious to one of ordinary skill in the art at the time of the invention modify applicant's prior art disclosure, Greenwald, Madhavan and Flood to provide a system/method wherein said spread has a bid price and said ratio of said number of trades executed at a bid price to said number of bid price quotes is greater than said ratio of said number of trades executed at an ask price to said number of ask price quotes and wherein said spread is adjusted by increasing said bid price. One would have been motivated to find the most profitable price at which to trade.

**Re Claim 16 and 33:** Applicant's prior art disclosure fails to disclose a system/method wherein said spread has an ask price and said ratio of said number of trades executed at a bid price to said number of bid price quotes is greater than said ratio of said number of trades executed at an ask price to said number of ask price quotes and wherein said spread is adjusted by increasing said ask price.

Madhavan discloses a system/method wherein said spread has a ask price (Madhavan, pg. 615, "The Bid-Ask Spread Measures the Cost of Trading", the spread has a bid and an ask price). Madhavan fails to disclose a system/method wherein said ratio of said number of trades executed at a bid price to said number of bid price quotes is greater than said ratio of said number of trades executed at an ask price to said number of ask price quotes and wherein said spread is adjusted by increasing said ask price.

Flood discloses a system/method "the spread will widen to compensate the dealer for losses to informed traders" and "widen, rather than narrow, spreads to better filter information from their trades (Flood, pg. 49)." Flood discloses a system/method

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“dealers should narrow spreads to attract informed order flow” (Flood, pg. 49). Flood fails to disclose a system/method wherein said ratio of said number of trades executed at a bid price to said number of bid price quotes is greater than said ratio of said number of trades executed at an ask price to said number of ask price quotes and wherein said spread is adjusted by increasing said ask price.

Official Notice is taken that it is old and well-known to adjust a business strategy based on a review of past transactions. For example, a seller may realize at a given price he sells a significant number of products. The seller may find however, if the seller raises the price incrementally, a few buyers may choose not to buy, but the losses from the buyers who left might not entirely offset the gains from the increased price. The result would be higher profits. Similarly, one would be inclined to adjust the price if the number of trades executed at a bid price to said number of bid price quotes is less than said ratio of said number of trades executed at an ask price to said number of ask price quotes proves to be less profitable.

Official Notice is taken that it is old and well-known that in order adjust a range, the higher variable, the lower variable or both must be changed. For example, ranges are used for classifying income tax brackets, high/low prices for the sale of goods and these ranges can be adjusted by modifying the higher or lower variables.

It would have been obvious to one of ordinary skill in the art at the time of the invention modify applicant's prior art disclosure, Greenwald, Madhavan and Flood to provide a system/method wherein said spread has an ask price and said ratio of said number of trades executed at a bid price to said number of bid price quotes is greater than said

ratio of said number of trades executed at an ask price to said number of ask price quotes and wherein said spread is adjusted by increasing said ask price. One would have been motivated to find the most profitable price at which to trade.

**Re Claim 17 and 34:** Applicant's disclosure admits a prior art system/method wherein said pricing engine provides price quotes to a plurality of clients (Applicant Disclosure, pg.1, lines 14+ -pg. 2, lines 1-2, Fig. 1). Applicant's disclosure fails to admit a system/method wherein said price adjustment module causes said spread provided to a randomly selected one of said plurality of clients to be widened.

Flood discloses a system/method wherein "the spread will widen to compensate the dealer for losses to informed traders" and "widen, rather than narrow, spreads to better filter information from their trades (Flood, pg. 49)." Flood fails to explicitly disclose a system/method wherein said price adjustment module causes said spread provided to a randomly selected one of said plurality of clients to be widened.

Official Notice is taken that it is old and well-known to randomly select one of a plurality of clients for business related purposes. For example, businesses frequently use random sampling or selection for marketing, customer feedback, product testing etc. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of applicant's prior art disclosure, Greenwald, Madhavan and Flood to provide a system/method wherein said pricing engine provides price quotes to a plurality of clients and wherein said price adjustment module causes said spread provided to a randomly selected one of said plurality of client to be widened. One would have been motivated to find the most profitable price at which to trade.

***Response to Arguments***

**Oath/Declaration**

The objection is withdrawn.

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With respect to amended claims 1 and 18, applicant argues neither Madhavan nor Flood teach or suggest a system or method for automatically adjusting the spread associated with the price of a security based on the information regarding the at least one past trade and the at least one past price quote.

Applicant's argument has been considered but is moot in view of the new ground of rejection.

Applicant argues neither reference teaches or suggest a system or method for automatically adjusting the spread associated with the price of a security at all.

Examiner notes, automating a process that was known in the prior art does not render the claimed invention non-obvious. Adjusting the spread associated with the price of a security was suggested by both Greenwald and Madhavan. Greenwald discloses adjusting said spread provided to said client based on the at least the at least one past price quote. Madhavan discloses adjusting said spread provided to said client based on the at least one past trade. These references, individually and in combination disclose the limitations of the claimed invention.

Moreover, merely using a computer to automate a known process does not by itself impart nonobviousness to the invention. See . In re Venner, 262 F.2d 91,95,120 USPQ 193,194 (CCPA 1958). See also< Dunn v. Johnston, 425 U.S. 219, 227-30, 189 USPQ 257,261 (1976). (See MPEP 2106 VI.).



Also, the price adjustment that occurs in Greenwald is automated. Thus, Greenwald in combination with the other prior art references discloses all the limitations of the new and amended claims of the invention.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

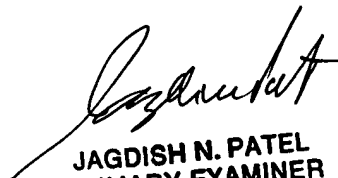
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Chandler whose telephone number is 571-272-1186. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on 571-272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SMC



**JAGDISH N. PATEL**  
**PRIMARY EXAMINER**